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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,187	10/21/2003	Isao Hanai	HIR-141	3666

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EXAMINER	
FERGUSON, MICHAEL P	
ART UNIT	**PAPER NUMBER**
3679	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,187	HANAI ET AL.	
	Examiner	Art Unit	
	Michael P. Ferguson	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 08/17/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 19, 2005 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-10, 12, 14-19, 21, 23-25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Berk (US 2,047,992).

As to claim 1, Berk discloses a shock-absorbing guardrail comprising:

a guard fence **2** having a back; and,

a mid-filler attachment **15,16** having elliptical sides that irreversibly deforms after collision impact (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50); and

an arm **16a** affixed to the mid-filler attachment **15,16** and affixed to the back of the guard fence wherein the shock-absorbing guardrail does not produce any elastic

restoring force after collision (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50, Figures 8 and 9).

As to claim 2, Berk discloses a guardrail comprising:

a connector **16b** for releasably affixing the arm to the back the guard fence **2** (Figure 9).

As to claim 3, Berk discloses a guardrail comprising:

a support post **1** affixed to the mid-filler attachment **16** (Figure 8).

As to claim 5, Berk discloses a guardrail comprising:

a shock-absorbing pipe **15,16** positioned between the guard fence **2** and the support post **1** (Figure 8).

As to claim 6, Berk discloses a guardrail wherein the mid-filler attachment **16** has an ohm-shaped cross-section (Figure 8).

As to claim 7, Berk discloses a guardrail comprising:

a large mid-filler attachment **16** having an ohm-shaped cross section with elliptical sides that irreversibly deforms after collision impact a mid-filler attachment **15,16** having elliptical sides that irreversibly deform after collision impact (inherently, mid-filler attachment **16** deforms when acted upon by a large enough force); and

a small mid-filler attachment **15** positioned within the large mid-filler attachment, wherein the mid-filler attachments are affixed to the back of the guard fence **2** (Figure 8).

As to claim 8, Berk discloses a guardrail comprising:

a connector **18** wherein the mid-filler attachment **15,16** releasably affixed to the support post **1** with the connector (Figure 8).

As to claim 9, Berk discloses a guardrail wherein the mid-filler attachment **15,16** undergoes irreversible deformation when the guard fence is impacted.

As to claim 10, Berk discloses a guardrail comprising:

a structure **1** selected from the group consisting of support poles, hydrants, semaphoric poles, bifurcations, anti-collision sections, sectional walls, walls at parking lots, concrete walls, light pole foundations, and loading docks wherein the structure is affixed to the guard fence **2** with the mid-filler attachment **15,16** positioned therebetween (Figure 8).

As to claim 12, Berk discloses a guardrail comprising:

a shock-absorbing pipe **15** positioned between the guard fence **2** and the structure **1** (Figure 8).

As to claim 14, Berk discloses a guardrail wherein the mid-filler attachment **16** has an ohm-shaped cross-section (Figure 8).

As to claim 15, Berk discloses a guardrail wherein the mid-filler attachment **15** has an open pipe shaped cross-section (Figure 8).

As to claim 16, Berk discloses a guardrail wherein the mid-filler attachment **15,16** is affixed to the structure **1** with connection parts **18** (Figure 8).

As to claim 17, Berk discloses a shock-absorbing guardrail for structures comprising:

a guard fence **2** having a back;

a big mid-filler attachment **16** having an ohm-shaped cross-section with elliptical sides that irreversibly deforms after collision impact a mid-filler attachment **15,16** having elliptical sides that irreversibly deform after collision impact (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50); and

a small mid-filler attachment **15** positioned within the big mid-filler attachment, wherein the mid-filler attachments are affixed to the back of the guard fence wherein the shock-absorbing guardrail does not produce any elastic restoring force after collision (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50, Figures 8 and 9).

As to claim 18, Berk discloses a guardrail wherein the small mid-filler attachment **15** is laminated (attached in layers) to the big mid-filler attachment **16** (Figure 8).

As to claim 19, Berk discloses a guardrail wherein the big mid-filler attachment **16** and the small mid-filler attachment **15** are arranged in layers (Figure 8).

As to claim 21, Berk discloses a guardrail comprising:

a structure **1** selected from the group consisting of support poles, hydrants, semaphoric poles, bifurcations, anti-collision sections, sectional walls, walls at parking lots, concrete walls, light pole foundations, and loading docks wherein the structure is affixed to the guard fence **2** with the mid-filler attachments **15,16** positioned therebetween (Figure 8).

As to claim 23, Berk discloses a guardrail comprising:

a shock-absorbing pipe **15** affixed to the back of the guard fence **2** (Figure 8).

As to claim 24, Berk discloses a method of producing a shock absorbing guardrail comprising:

providing a guard fence **2** having a back;

attaching a mid-filler attachment **15,16** having an ohm-shaped cross-section with elliptical sides that irreversibly deforms after collision impact a mid-filler attachment **15,16** having elliptical sides that irreversibly deform after collision impact (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50) to the back of the guard fence wherein the shock-absorbing guardrail does not produce any elastic restoring force after collision (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50, Figures 8 and 9).

As to claim 25, Berk discloses a method comprising:

attaching the mid-filler attachment **15,16** to a support post **1** so that the mid-filler attachment is positioned between the back of the guard fence **2** and the support post (Figure 8).

As to claim 27, Berk discloses a method comprising:

attaching the mid-filler attachment **15,16** to a structure **1** so that the mid-filler attachment is positioned between the back of the guard fence **2** and the structure (Figure 8).

3. Claims 1-6, 8-16 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Kröning et al. (US 6,299,227).

As to claim 1, Kröning et al. disclose a shock-absorbing guardrail comprising:

a guard fence **2** having a back; and,

a mid-filler attachment **5** having elliptical sides that irreversibly deforms after collision impact; and

an arm **9** affixed to the mid-filler attachment **5** and affixed to the back of the guard fence wherein the shock-absorbing guardrail does not produce any elastic restoring force after collision (Figures 1 and 2).

As to claim 2, Kröning et al. disclose a guardrail comprising:

a connector **17** for releasably affixing the arm **9** to the back the guard fence **2** (Figure 1).

As to claim 3, Kröning et al. disclose a guardrail comprising:

a support post **22** affixed to the mid-filler attachment **5** (Figure 1).

As to claim 4, Kröning et al. disclose a guardrail comprising a shock-absorbing resin **23,24** positioned between the back of the guard fence **2** and the support post **22** (Figure 1).

As to claim 5, Kröning et al. disclose a guardrail comprising:

a shock-absorbing pipe **6** positioned between the guard fence **2** and the support post **22** (Figure 1).

As to claim 6, Kröning et al. disclose a guardrail wherein the mid-filler attachment **5** has an ohm-shaped cross-section **6,8** (Figure 2).

As to claim 8, Kröning et al. disclose a guardrail comprising:

a connector (received in openings **21**) wherein the mid-filler attachment **5** releasably affixed to the support post **22** with the connector (Figure 1).

As to claim 9, Kröning et al. disclose a guardrail wherein the mid-filler attachment **5** undergoes irreversible deformation when the guard fence is impacted.

As to claim 10, Kröning et al. disclose a guardrail comprising:

a structure **22** selected from the group consisting of support poles, hydrants, semaphoric poles, bifurcations, anti-collision sections, sectional walls, walls at parking lots, concrete walls, light pole foundations, and loading docks wherein the structure is affixed to the guard fence **2** with the mid-filler attachment **5** positioned therebetween (Figure 1).

As to claim 11, Kröning et al. disclose a guardrail comprising a shock-absorbing resin **23,24** positioned between the back of the guard fence **2** and a structure **22** (Figure 1).

As to claim 12, Kröning et al. disclose a guardrail comprising:

a shock-absorbing pipe **6** positioned between the guard fence **2** and the structure **22** (Figure 2).

As to claim 13, Kröning et al. disclose a guardrail comprising a shock-absorbing resin **23,24** positioned between the back of the guard fence **2** and the structure **22** (Figure 1).

As to claim 14, Kröning et al. disclose a guardrail wherein the mid-filler attachment **5** has an ohm-shaped cross-section **6,8** (Figure 2).

As to claim 15, Kröning et al. disclose a guardrail wherein the mid-filler attachment **5** has an open pipe shaped cross-section **6** (Figure 2).

As to claim 16, Kröning et al. disclose a guardrail wherein the mid-filler attachment **5** is affixed to the structure **22** with connection parts (received in openings **20**; Figure 2).

As to claim 24, Kröning et al. disclose a method of producing a shock absorbing guardrail comprising:

providing a guard fence **2** having a back;

attaching a mid-filler attachment **5** having an ohm-shaped cross-section **6,8** with elliptical sides that irreversibly deforms after collision impact a mid-filler attachment **5** having elliptical sides that irreversibly deform after collision impact to the back of the guard fence wherein the shock-absorbing guardrail does not produce any elastic restoring force after collision (Figures 1 and 2).

As to claim 25, Kröning et al. disclose a method comprising:

attaching the mid-filler attachment **5** to a support post **22** so that the mid-filler attachment is positioned between the back of the guard fence **2** and the support post (Figure 1).

As to claim 26, Kröning et al. disclose a method comprising attaching a shock-absorbing resin **23,24** between the back of the guard fence **2** and the support post **22** (Figure 1).

As to claim 27, Kröning et al. disclose a method comprising:

attaching the mid-filler attachment **5** to a structure **22** so that the mid-filler attachment is positioned between the back of the guard fence **2** and the structure (Figure 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 4, 11, 13, 20, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berk.

As to claim 4, Berk fails to disclose a guardrail comprising a shock-absorbing resin positioned between the back of the guard fence and the support post.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a guardrail as disclosed by Berk to have a mid-filler attachment made of shock-absorbing resin as such practice is a design consideration within the skill of the art.

As to claim 11, Berk fails to disclose a guardrail comprising a shock-absorbing resin positioned between the guard fence and a structure.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a guardrail as disclosed by Berk to have a mid-filler attachment made of shock-

absorbing resin as such practice is a design consideration within the skill of the art.

As to claim 13, Berk fails to disclose a guardrail comprising a shock-absorbing resin positioned between the guard fence and the structure.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a guardrail as disclosed by Berk to have a mid-filler attachment made of shock-absorbing resin as such practice is a design consideration within the skill of the art.

As to claim 20, Berk fails to disclose a guardrail comprising a shock absorbing resin positioned within the mid-filler attachments.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a guardrail as disclosed by Berk to have a small mid-filler attachment made of shock-absorbing resin as such practice is a design consideration within the skill of the art.

As to claim 22, Berk fails to disclose a guardrail comprising a shock-absorbing resin affixed to the back of the guard fence.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re

Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a guardrail as disclosed by Berk to have a mid-filler attachment made of shock-absorbing resin as such practice is a design consideration within the skill of the art.

As to claim 26, Berk fails to disclose a method comprising attaching a shock absorbing resin between the back of the guard fence and the support post.

The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a method as disclosed by Berk to have a mid-filler attachment made of shock-absorbing resin as such practice is a design consideration within the skill of the art.

Response to Arguments

6. Applicant's arguments filed July 19, 2005 have been fully considered but they are not persuasive.

As to claims 1, 17 and 24, Attorney argues that:

Berk does not disclose a shock-absorbing guardrail *wherein the shock-absorbing guardrail does not produce any elastic restoring force after collision*.

Examiner disagrees. As to claims 1, 17 and 24, Berk discloses a shock-absorbing guardrail wherein the shock-absorbing guardrail does not produce any elastic restoring force after collision (mid-filler attachment **16** permanently deforms when acted upon by a large enough force; page 1 column 2 lines 46-50).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MPF
08/31/05

Daniel P Stodola

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SUPERVISORY PATENT EXAMINER
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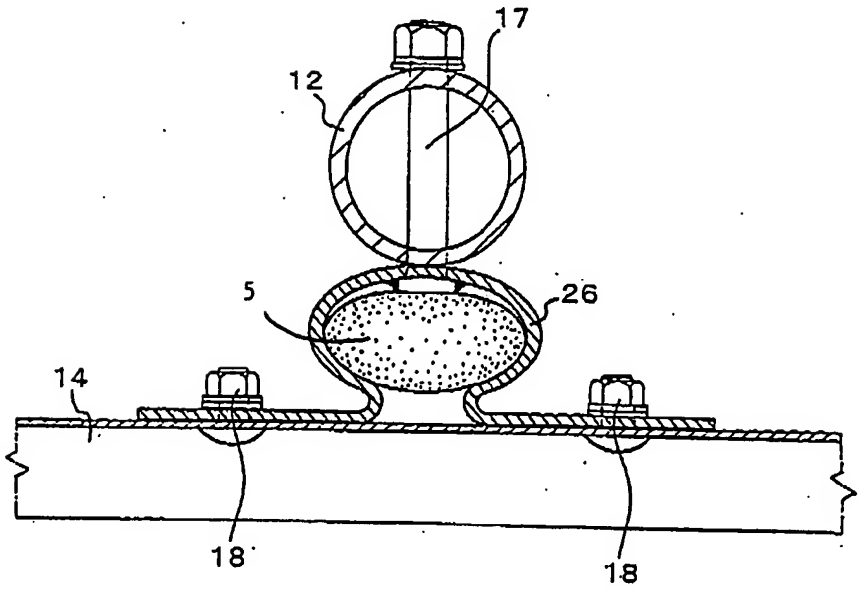
REPLACEMENT SHEET

Fig.4



APPROVED
NKP
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